Integrity Management

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Topics

- What & Where
- Elements of IM
- High Consequence Area (HCA)
- Unusually Sensitive Area (USA)
- Baseline Assessment (BAP)
- Continual Assessment
- Risk Analysis
- Interval Variance/Deviation
- Assessment Methods
- Gathering
- TAC 8.101
- IM Regulatory Update
- FAQ's: Facilities
- Shall/Should
- RRC Inspection

What & Where

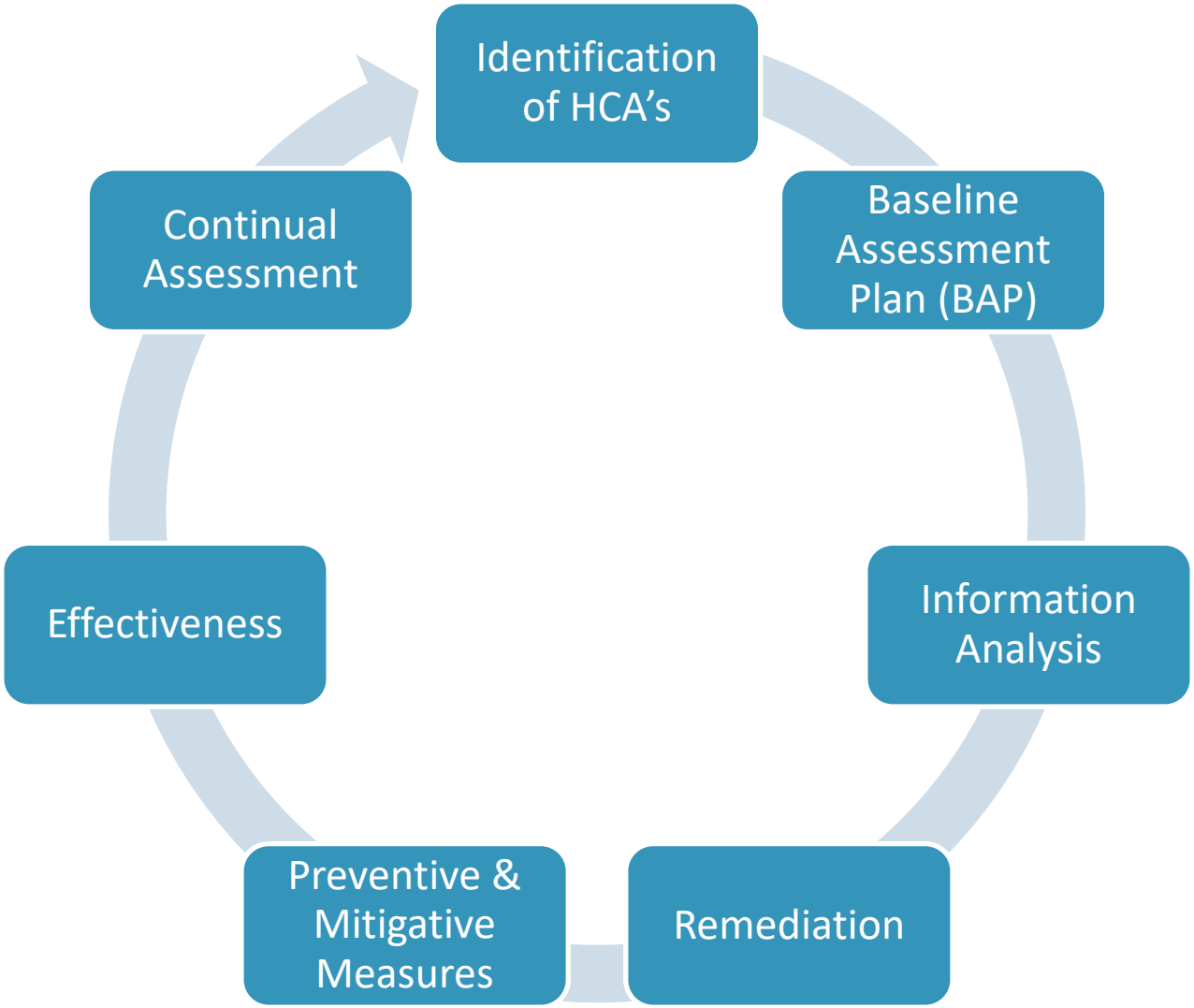
What?

- Assess
- Evaluate
- Repair
- Validate

Where?

- 49 CFR 192
  - Subpart O
- 49 CFR 195
  - 195.450 and 195.452
- TAC 8.101 (non-HCA)

Elements of IM



High Consequence Area (HCA)

Part 192 (Gas)

- 192.903
- Method 1
  - Class 3 & 4 locations
    - 192.5
- Method 2
  - Potential Impact Radius (PIR)
    - ≥ 20 dwellings
    - Identified site

Part 195 (Liquids)

- 195.450
- Could-affect
  - Commercially Navigable Waterway
  - High Population
  - Other Population
  - Unusually Sensitive Area (USA)
- National Pipeline Mapping System (NPMS)

Unusually Sensitive Area (USA)

- 195.6
- NPMS
  - Newer USA layer (Coastal Ecological USA layer)
- Locations
  - Drinking water (EPA)
    - U.S. EPA DWMAPS https://geopub.epa.gov/DWWidgetApp/
  - Ecology (TPWD)
    - Rare, Threatened, and Endangered Species of Texas https://tpwd.texas.gov/gis/rtest/#:~:text=Welcome%20to%20the%20Rare,%20Threatened,%20and%20Endangered%20Species%20of%20Texas

Baseline Assessment (BAP)

Part 192 (Gas)

- 192.921(f)/(g)
- Newly identified
- BAP
  - 1 year
- Assessment
  - 10 years

Part 195 (Liquids)

- 195.452(d)
- Newly identified
- BAP
  - 1 year
- Assessment
  - 5 years

- Establish method and schedule based on risk factors.

Continual Assessment

Part 192 (Gas)

- 192.939
- 7 calendar years

Part 195 (Liquids)

- 195.452(j)(3)
- 5 years, not to exceed 68-months

- These are not default intervals, only maximum.

Risk Analysis

Part 192 (Gas)

- 192.917
- Risk analysis
  - Periodic
  - Rupture Mitigative Valve (RMV)
    - annual

Part 195 (Liquids)

- 195.452(j)(2)
- Risk analysis
  - Annual/15 months
  - Emergency Flow Restricting Devices (EFRD)

- Conservatively evaluate risk (likelihood and consequence) of a failure and consider preventative and mitigative measures.

Interval Variance/Deviation

Part 192 (Gas)

- 192.943
- Unavailable technology
  - Explanation and what will be done in interim.
  - 180 days prior
- Maintain supply
  - Demonstrate the need for supply and tool's ill effect.
  - 180 days prior

Part 195 (Liquids)

- 195.452(j)(4)
- Unavailable technology
  - Explanation and what will be done in interim.
  - 180 days prior
- Engineering basis
  - Combined with other technology.
  - 270 days prior

Assessment Methods

Part 192 (Gas)

- 192.937
  - ILI
  - Pressure Test
  - Direct assessment
  - Spike test
  - In situ direct examination
  - Guided-wave UT

Part 195 (Liquids)

- 195.452(j)(5)
  - ILI
  - Pressure Test
  - External Corrosion Direct Assessment (ECDA)

Gathering

- Onshore, non-rural, could affect HCA
- Lines located within Gulf of Mexico inlets
  - "Under existing § 195.1(a)(4), any **onshore gathering lines located in non-rural areas and gathering lines located in Gulf of Mexico inlets** are covered by 49 CFR part 195, and if these gathering lines are **within HCAs or could affect HCAs**, they are subject to the full IM program requirements, including integrity assessments, under the current § 195.452." [1]

1 Federal Register / Vol. 84, No. 190 / Tuesday, October 1, 2019 / Rules and Regulations

TAC 8.101

Figure 1: 16 TAC 8.101(b)(2)

- Gas transmission
- ≥ 100 psig
  - Class 2, 3, 4
  - 5/10-year
- Class 1
  - > 8-inch; and
  - > 20% SMYS
  - 10-year

Figure 2: 16 TAC 8.101(b)(2)

- All hazardous liquid pipelines
- Non-rural
  - 5-year
- Rural
  - 5/10-year

Recent IM Regulatory Updates Part 192

- June 28, 2024
  - IBR Updates
    - ASME B31.8S-2018
- January 15, 2025
  - ICDA (192.927)
    - Investigate root cause
  - Repair criteria (192.714 & 192.933)
    - Metal loss at seam
    - Cracks

FAQs: Facilities (1 of 2)

- Does the rule apply to more than line pipe?
  - Includes
    - valves and other appurtenances connected to line pipe
    - metering and delivery stations
    - pump stations/compressor stations
    - storage field facilities
    - breakout tank(s)
  - Baseline/continual assessments requirements apply only to line pipe.

FAQs: Facilities (2 of 2)

- What must an operator do to comply with the rule for these facilities?
  - identify facilities that could impact HCAs,
  - risk analysis
  - implement additional preventive or mitigative measures, if needed.
  - evaluate the effectiveness of these processes and the risk controls that are implemented to reduce facility risk.

Shall/Should

- “Shall” & “must”
  - Mandatory
- “Should”
  - Must consider
  - Develop and document technical justification
- “May”
  - Optional
- *FAQ-244*
- *Inspection Reassessment Intervals Guidance for Less than 7 years October 2016*

RRC Inspection (1 of 4)

- PIPES Inspection Schedule
  - Base 5-year interval
    - Exception for field evaluation
  - Fiscal year

RRC Inspection (2 of 4)

- Preparation
  - Scheduling
  - Protocol/checklist
  - Operator should prepare to share (minimum):
    - Federal Integrity Management Plan/Texas IMP
    - Baseline Assessment Plan
    - Continual Assessment Plan
    - Separate Facilities Assessment Plans
    - Associated OPID's/T-4 Permit numbers
    - Annual Reports

RRC Inspection (3 of 4)

- Inspection
  - Company information will be confirmed in PIPES
  - Mileages
    - PIPES/T-4/Annual Report consistency
  - All parts of Subpart O and 195.452 are addressed in protocols
  - Field evaluation
  - Findings are shared at closing
    - Executive Closing Summary

RRC Inspection (4 of 4)

- Plan of Correction (POC)
  - Executive Closing Summary
  - Official correspondence will be sent via email to the company representative
  - IM POC's can be complex
    - Conversations/meetings
  - Two-parts
    - POC must include a **plan** and **date** of anticipated completion
    - completion requires supporting documentation submittal by the agreed upon date

Conclusion

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